

Notice of Allowability

Application No.

09/987,410

Examiner

Lamson D Nguyen

Applicant(s)

KAGA ET AL.

Art Unit

2861

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-80.
3. ☒ The drawings filed on 14 November 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. <u>2</u> . | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Reasons for allowance

1. The following is an examiner's statement of reasons for allowance:

- The primary reason for the allowance of claims 1-30 is the inclusion of the limitation of an inkjet printer comprising a filter member that divides a lower portion of an air chamber into a first chamber at an ink tank side and a second chamber at a printhead side, the filter member passes ink through when the printhead performs printing, wherein an upper portion of the air chamber has less resistance to the inkflow than that of the filter member, the air is stored in the top portion of the air chamber when the ink head performs printing and the air stored in the air chamber is discharged when a purge device generates an ink flow that goes over the filter member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
- The primary reason for the allowance of claims 31-55 is the inclusion of the limitation of an inkjet printer comprising a wall that divides a lower portion of an air chamber into a first chamber at an ink tank side and a second chamber at the printhead side in such a manner that the first and second chambers communicate at a upper portion of the air chamber, an ink hole disposed on the wall, and a valve member that opens the ink hole to pass the ink when the printhead performs printing and closes the ink hole when the purging device conducts the purging operation, wherein the air stored in the air chamber is discharged when the purge device generates an ink flow that goes over the wall. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
- The primary reason for the allowance of claims 56-59 is the inclusion of the limitation of an inkjet printer comprising a wall that divides a lower portion of an air chamber into a first chamber at an ink tank side and a second chamber at the printhead side, wherein the lower portion of the air chamber has greater resistance to the ink flow than that of an upper portion of the air chamber, an inside wall of the top portion of the first chamber is in a taper shape to have a decreasing volume toward the top portion, the top portion connected to the second chamber, and the air is stored in the top portion of the air chamber when the printhead performs printing and the air stored in the chamber when the printhead performs printing and the air stored in the chamber is discharged when the purge device generates an inkflow that goes over the

wall member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

- The primary reason for the allowance of claims 61-64 is the inclusion of the limitation of an inkjet printer comprising a permanent air chamber that stores a certain amount of air after the purge device operates the purging operation, wherein the lower portion of the air chamber has a greater resistance to the inkflow than that of an upper portion of the air chamber, and wherein the air is stored in the top portion of the air chamber when the printhead performs printing and the air stored in the air chamber is discharged so as to keep the certain amount of air stored in the permanent air chamber when the purge device generates an inkflow that goes over the wall member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
- The primary reason for the allowance of claims 65-66 is the inclusion of the limitation of an inkjet printer comprising a permanent air chamber that stores a certain amount of air after the purge device operates the purging operation, wherein the permanent air chamber is located above the inkflow generated by the purge device, and the air is stored in the top portion of the air chamber when the ink head performs printing and the air stored in the air chamber is discharged so as to keep the certain amount of air stored in the chamber when the purge device generates an ink flow that goes over the wall member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
- The primary reason for the allowance of claims 67-69 is the inclusion of the limitation of an inkjet printer comprising a guide wall that divides the first chamber to create a third chamber but keeps the top portion of the first chamber open, wherein the lower portion of the air chamber has greater resistance to the inkflow than that of an upper portion of the air chamber. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
- The primary reason for the allowance of claims 70-72 is the inclusion of the limitation of an inkjet printer comprising a connecting member that is provided with a plurality of connecting ports, wherein the lower portion of the air chamber has greater resistance to the inkflow than an upper portion of the ink chamber, the connecting ports of the connecting member are communicated with the respective ink passages, and the air is stored in each air chamber

when the ink head performs printing and the air stored in each chamber is discharged when the purge device generates an ink flow that goes over the wall member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

- The primary reason for the allowance of claims 73-79 is the inclusion of the limitation of an inkjet printer comprising a connecting member that is provided with a plurality of connecting ports, wherein the connecting ports are communicated with the respective ink passages, the air chambers are formed into one body, and the air is stored in the top portion of each chamber when the ink heads perform printing and the air stored in the air chambers is discharged when the purge device generates an ink flow that goes over the wall member. It is these limitations found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested.
- The primary reason for the allowance of claim 80 is the inclusion of the limitation of an inkjet printer comprising an interface board that is connected with a first flexible wiring member and is placed parallel to the body at a side of the air chamber opposite to the printhead, wherein the interface board connects the first and second flexible wiring members, and the air is stored in the top portion of the air chamber when the print head performs printing and the air is stored in the air chamber is discharged when the purge device generates an inkflow that goes faster than an inkflow generated when the ink head performs printing.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Barinaga et al. (6,478,415) teach a rejuvenation station for a printer cartridge comprising an adapter having an air purge mechanic.
- Lewis et al. (6,290,343) teach an ink supply cartridge including a pressurized container having air.


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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamson D Nguyen whose telephone number is 703-306-4546. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on 703-308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

August 22, 2003



LAMSON NGUYEN
PRIMARY EXAMINER